

[0029] FIG. 15 is a schematic view of a cover adopting a rotatable structure.

[0030] FIG. 16 is a diagram showing a method of detecting a position of a connecting terminal of a cover.

[0031] FIG. 17 is a diagram showing that a photo-coupler is provided inside of a connecting unit.

[0032] FIG. 18 is a flowchart showing an operation of imparting a connecting order ID Number to a connecting terminal.

[0033] FIG. 19 is a diagram showing a state that an intermediate fixing part is applied.

[0034] FIG. 20 is a diagram showing that an element fixing axis is provided with an intermediate fixing part.

[0035] FIG. 21 is a diagram explaining about a method of detecting a position of a connecting terminal of a cover.

[0036] FIG. 22 is a diagram showing that connecting terminals of a cover are provided at different positions in a vertical direction of a cover.

[0037] FIG. 23 is a diagram showing a shape of a connecting terminal of an electronic paper.

[0038] FIG. 24 is a diagram showing a shape of a connecting terminal of a cover.

[0039] FIG. 25 is a block diagram showing an outline of an electronic paper of the invention.

[0040] FIG. 26 is a diagram showing the editing (deleting) processing of an electronic paper of the invention.

[0041] FIG. 27 is a diagram showing the editing (moving) processing of an electronic paper of the invention.

[0042] FIG. 28 is a diagram showing an example of the moving of an electronic paper file of the invention.

[0043] FIG. 29 is a diagram showing an outline structure of an electronic paper file.

[0044] FIG. 30 is an image view of the operation that an electronic paper is edited by means of a writing material and a transmissive sheet.

DETAILED DESCRIPTION OF THE INVENTION

[0045] The following explanation refers to the embodiments of the invention according to the drawings. The embodiments simply show examples in which the invention is put into practical use, and does not restrict the scope of the technical field of the invention.

[0046] An electronic paper file 100 of the invention comprises an electronic paper 101 of a flexible display medium and a cover 102 to which a plurality of electronic papers 101 can be attached.

[0047] At a specific position of a spine board 103 of the cover 102, sending-receiving means 104 for obtaining data to be displayed on an electronic paper (which is called "display-data" hereafter) from a storage medium like CD-ROM, a flash memory, or the like, and first storage means 105 for storing thus obtained display-data are provided.

[0048] That is to say, when the sending-receiving means 104 is connecting with a storage medium, display-data

stored in the storage medium is inputted and stored in the first storage means 105. Besides, it is possible to apply a storage medium like an IC memory or an IC card to be built in the cover 102 as the first storage means 105.

[0049] First, a user selects a desired page number of display-data stored in the first storage means 105 by a button provided on page selecting means 108 shown in FIG. 2. Thus selected page number is displayed on page number display means 107, and the user confirms whether the exact page number was selected or not. After confirming that the exact page number could be selected, the user press a transfer button 310 provided on the page selecting means 108 and the selected page number is transferred to first display control means 106 provided on the spine board 103.

[0050] According to the page number selected as above, the first display control means 106 obtains display-data from the first storage means 105. However, since the display-data obtained in this way varies in form such as ASCII presentation, Binary presentation and so on, the first display control means 106 is to convert the form of the display-data to the dot presentation that is the displaying form of the display unit of the electronic paper 101, and then transfer the data to a display driver 122.

[0051] Besides, it is preferable that the first display control means 106 is arranged so as to let a luminous sheet of the electronic paper emit automatically, which will be explained later, when the electronic paper is powered on.

[0052] The cover 102 and the electronic paper 101 are provided with a pair of connecting terminals (a pair of female and male connecting terminals, for example) respectively, which can be connected with each other electrically and physically. It is needless to say that, if connecting terminals are not connected physically but electrically, it is possible to display characters corresponding to the display-data on a display unit 121. One of the methods of connecting electrically is to provide the wireless communication function to both the cover 102 and the electronic paper 101 (for instance, communication function complying with IRDA, Bluetooth, or the like)

[0053] The electronic paper 101 of the invention is detachable from the cover 102. Therefore, in order to transfer the display-data to only the connecting terminal 21 to which the electronic paper is attached, the cover 102 may be provided with attachable state detecting means 30 explained hereafter.

[0054] As shown in FIG. 10(a), each connecting terminal 21 of the cover 102 is placed and fixed at a specific position of the cover 102. Meanwhile the first storage means 105 stores a number to identify each connecting terminal 21 of the cover 102 (which is called "connecting terminal ID number" hereafter) together with the arrangement order.

[0055] A method of determining the connecting terminal ID number is not restricted specially, but it is preferable the number increases as going away from a cover sheet 31 of the electronic paper file. The connecting terminal ID number in this embodiment is determined as shown in FIG. 10(b), that is to say, the connecting terminal ID number "1" is imparted to a connecting terminal 21 placed at the nearest position to the cover sheet 31, "2" is to a communication terminal 21 near the second, "3" is to the communication terminal 21 near the third, and "4" is to the communication terminal 21 near the fourth.